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Federal Communications Commission
Washington, DC 20554

RE: MM Docket 87-268, Advanced Television Systems.

Comments in Second Further Notice of Proposed Rulemaking.

Ladies and Gentlemen:

This letter is to offer comments on one aspect of the development of the Table of Allotments for the ATV channels. The draft Table of Allotments includes 17 VHF channels. I believe this is highly undesirable and that a smoother transition to ATV would result from choosing a different compromise that would permit all ATV allotments to be in the UHF band.

UNDESIRABLE TO INCLUDE VHF CHANNELS IN A PREDOMINATELY UHF TABLE OF aLLOTMENTS

I believe there are five reasons why it is highly undesirable to use VHF channels during the transition:

1) There is a substantial saving of engineering and production effort relating to both receiving and transmitting equipment if all ATV channels are in the UHF band.

2) There well may be compromises in the design of receivers if they must receive both VHF and UHF ATV channels. In any event millions of ATV receivers would have VHF circuitry which would be useless in most areas of the country.

3) A station with a VHF ATV channel will be obliged to purchase a VHF transmitter and antenna which will be obsolete when NTSC stations cease operating and all ATV stations are on UHF. This is in contrast to a station with a UHF ATV assignment which, if its transition channel is not the same as its final channel, can retune and continue to use its transmitter and the antenna will at least have resale value if it cannot be retuned (which depends upon the channel change is small or large).

4) The few VHF ATV stations will be orphans like the early UHF NTSC stations. Technical expertise relating both to transmission equipment and home receiving installations will evolve as it has over the years for NTSC. VHF ATV stations will be a small minority and for the most part will not get the benefit of this subtle but important new knowledge at the "grass roots level".

5) The presence of even a few VHF ATV channels will perpetuate the habit of using VHF channels for TV and make it more difficult to ultimately have a complete transition to UHF.

In summary, having all transition ATV channels in the UHF band will be desirable for both the ATV station licensees and the viewing public.

METHODOLOGY TO PERMIT ALL ATV STATION TO HAVE UHF ALLOTMENTS

It is suggested that directional transmitting antennas be considered for the 17 cases where UHF channels, consistent with the spacing requirements and assuming omnidirectional transmitting antennas, were not found.

Most, if not all of the 17 VHF allotments are at locations somewhat outside the associated principal city and the related metropolitan area. Thus an ATV station with a mildly directional antenna, such as a -16dB response in the general direction away from the principal city, would loose very little population coverage. Surely a few such mandated directional antennas would not retard the growth of the ATV receiver population or set back the date for complete transition to ATV broadcasting.

The use of directional antennas in UHF broadcasting is a common and successful technique. Some NTSC UHF stations purposely use directional transmitting antennas to maximize the cost effectiveness of their transmission plant. Further, for those of us associated with planning LPTV stations, using directional antennas as a means of allowing additional stations to operate without causing interference i.e.fitting channels in "with a shoehorn" is a common occurrence. The Commission need not specify the actual directional antenna but only needs to indicate the applicant for the ATV allotted channel has to protect a specified NTSC station or another ATV allotment.

It is my understanding that the Commission has a computer program that selects ATV channels, as in the Draft Table of Allotments, by rating possible channels at a particular location. By assigning demerits to channels that do not meet the full spacing requirements the least undesirable channels can be identified. I suggest that the process be used to find the least one or two undesirable UHF channels for each of the 17 VHF allotments. and then a check be made whether a mildly directional antenna would

make the channel acceptable (i.e. the reduction in ERP in a critical direction would compensate for the short spacing) without impacting the coverage to the station's principal city and related metropolitan area.

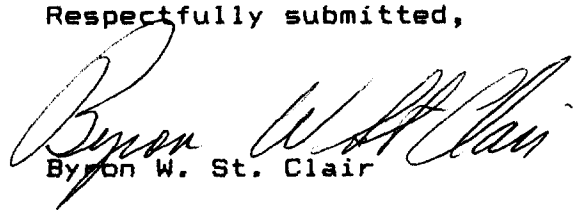
If any of the ATV assignments in question could not tolerate a directional antenna without impacting its metropolitan area coverage, then it would be necessary to look at using a directional pattern at the other station of the interference pair. It would also be worthwhile looking at the actual height and HAAT of the existing NTSC facility which might be less than the values assumed in generating the Draft Table.

There is a minor side benefit. Presumably an ATV allotted channel with a directional antenna requirement would be considered the least desirable assignment in a market. There would thus be an incentive for NTSC stations to step forward promptly to apply for and build on one of the ATV channels in the market without a directional antenna requirement.

CONCLUSION

In making the above suggestions I realize the process per channel is laborious. However, the number of channels is limited and the benefits of an all UHF Table of ATV Allotments is so great as to be, in my opinion, an absolute requirement.

Respectfully submitted,



Byron W. St. Clair

P.S. The use of Channel 37 should be considered, at least on a temporary basis during the time of simulcasting.. It seems unlikely such use in congested areas along the eastern seaboard or along the Pacific coast from San Francisco north would cause interference to Radio Astronomy. Note that neither Canada or Mexico reserve this channel. We must consider if it is in the public interest to continue the complete nationwide reservation of this channel during the transition period.